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DUTY

GDS 18V-450 HC | GDS 18V-450 PC | GDS18V-450H | GDS18V-450P

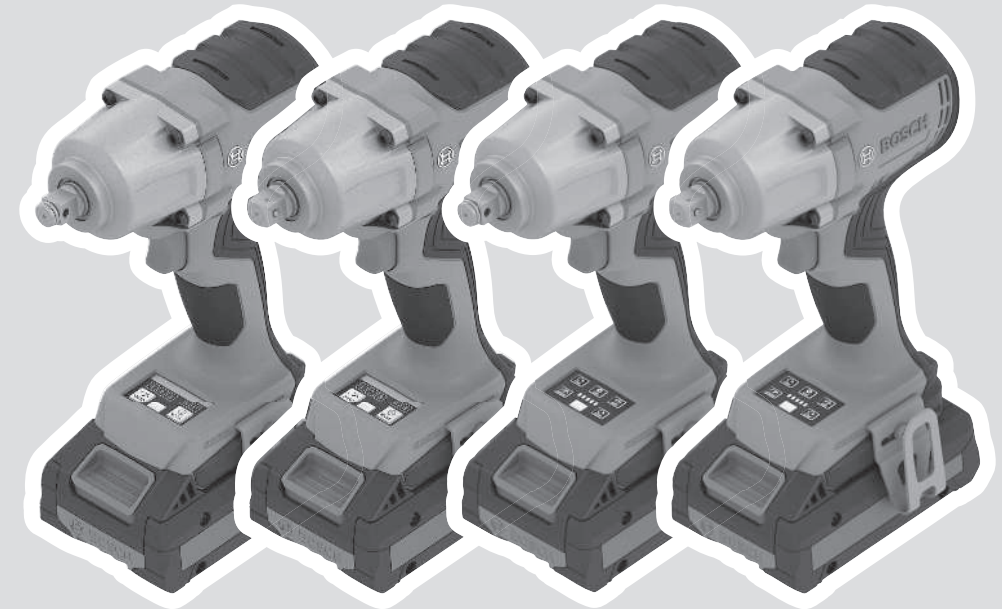
Robert Bosch Power Tools GmbH
70538 Stuttgart
GERMANY

www.bosch-pt.com

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en Original instructions







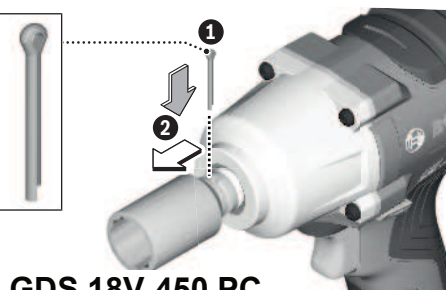
GDS 18V-450 HC
GDS 18V-450 PC



GDS18V-450H
GDS18V-450P

A

GDS 18V-450 HC
GDS18V-450H

B

GDS 18V-450 PC
GDS18V-450P

C

GDS 18V-450 HC
GDS 18V-450 PC

D

GDS18V-450H
GDS18V-450P

E

English

Safety Instructions

General Power Tool Safety Warnings

⚠ WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

- ▶ **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- ▶ **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- ▶ **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

Personal safety

- ▶ **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- ▶ **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- ▶ **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- ▶ **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

- ▶ **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- ▶ **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- ▶ **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Power tool use and care

- ▶ **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- ▶ **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- ▶ **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- ▶ **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- ▶ **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- ▶ **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Battery tool use and care

- ▶ **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

- ▶ **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- ▶ **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- ▶ **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- ▶ **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- ▶ **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
- ▶ **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

- ▶ **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
- ▶ **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

Safety Warnings for Impact Wrenches

- ▶ **Hold the power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring.** Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- ▶ **Use suitable detectors to determine if there are hidden supply lines or contact the local utility company for assistance.** Contact with electric cables can cause fire and electric shock. Damaging gas lines can lead to explosion. Breaking water pipes causes property damage.
- ▶ **Only use impact-resistant bits and sockets as application tools.** Only these application tools are suitable for impact screwdrivers.
- ▶ **Hold the power tool securely.** When tightening and loosening screws be prepared for temporarily high torque reactions.
- ▶ **Secure the workpiece.** A workpiece clamped with clamping devices or in a vice is held more secure than by hand.

- ▶ **Always wait until the power tool has come to a complete stop before placing it down.** The application tool can jam and cause you to lose control of the power tool.
- ▶ **In case of damage and improper use of the battery, vapours may be emitted. The battery can set alight or explode.** Ensure the area is well ventilated and seek medical attention should you experience any adverse effects. The vapours may irritate the respiratory system.
- ▶ **Do not modify or open the battery.** There is a risk of short-circuiting.
- ▶ **The battery can be damaged by pointed objects such as nails or screwdrivers or by force applied externally.** An internal short circuit may occur, causing the battery to burn, smoke, explode or overheat.
- ▶ **Only use the battery in the manufacturer's products.** This is the only way in which you can protect the battery against dangerous overload.



Protect the rechargeable battery against heat, e.g. including prolonged sun exposure, fire, water, and moisture. There is a risk of explosion and short circuit.

- ▶ **Application tools can become hot during operation. There is a risk of burns when changing the application tool.** Use protective gloves to remove the application tool.
- ▶ **If you are working in an elevated position, secure the power tool and accessories sufficiently using a fall protection system and ensure that there are no persons below the work area. Wear protective headgear when carrying out overhead work.** This will enable you to avoid material damage and personal injury if you inadvertently drop the power tool and accessories.
- ▶ **Caution! When using the power tool with Bluetooth®, a fault may occur in other devices and systems, aeroplanes and medical devices (e.g. pacemakers, hearing aids). Also, damage to people and animals in the immediate vicinity cannot be completely excluded. Do not use the power tool with Bluetooth® in the vicinity of medical devices, petrol stations, chemical plants, areas with a potentially explosive atmosphere or in blasting areas. Do not use the power tool with Bluetooth® in aircraft. Avoid using the product near your body for extended periods.**

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WARNING

Ensure that the coin cell is kept out of the reach of children. Coin cells are dangerous.

- ▶ **Coin cells must never be swallowed or inserted into any other part of the body. If you suspect that someone has swallowed a coin cell or that a coin cell has entered the body in another way, seek medical attention immediately.** Swallowing coin cells can result in severe internal burns and death within 2 hours.
- ▶ **Ensure that coin cell replacement is carried out properly.** There is a risk of explosion.
- ▶ **Only use the coin cells listed in this operating manual.** Do not use any other coin cells or other forms of electrical power supply.
- ▶ **Do not attempt to recharge the coin cell and do not short circuit the coin cell.** The coin cell may leak, explode, catch fire and cause personal injury.
- ▶ **Remove and dispose of drained coin cell correctly.** Drained coin cell may leak and damage the product or cause personal injury.
- ▶ **Do not overheat the coin cell or throw it into fire.** The coin cell may leak, explode, catch fire and cause personal injury.
- ▶ **Do not damage the coin cell and take the coin cell apart.** The coin cell may leak, explode, catch fire and cause personal injury.
- ▶ **Do not allow damaged coin cells to come into contact with water.** Leaking lithium may mix with water to create hydrogen, which could cause a fire, an explosion, or personal injury.

Product Description and Specifications



Read all the safety and general instructions.

Failure to observe the safety and general instructions may result in electric shock, fire and/or serious injury.

Please observe the illustrations at the beginning of this operating manual.

Intended Use

The machine is intended for driving in and loosening screws and bolts as well as for tightening and loosening nuts within the respective range of dimension.

Technical Data

Cordless Impact Wrench		GDS 18V-450 HC	GDS 18V-450 PC	GDS18V-450H	GDS18V-450P
Article number		3 601 JK4 0..	3 601 JK4 1..	3 601 JK4 2..	3 601 JK4 3..
Rated voltage	V=	18	18	18	18
No-load speed ^(A)					
– Setting 1	min ⁻¹	1000	1000	1000	1000
– Setting 2	min ⁻¹	1500	1500	1300	1300
– Setting 3	min ⁻¹	2300	2300	1500	1500
– Setting 4	min ⁻¹	–	–	1900	1900
– Setting 5	min ⁻¹	–	–	2300	2300

GDS 18V-450 HC / GDS 18V-450 PC:

With the *Bluetooth*® Low Energy Module inserted, power tool data and settings can be transferred between the power tool and a mobile device by means of *Bluetooth*® wireless technology.

Product Features

The numbering of the product features refers to the diagram of the power tool on the graphics page.

- (1) Tool holder
- (2) Rotational direction switch
- (3) *Bluetooth*® Low Energy Module cover (GDS 18V-450 HC / GDS 18V-450 PC)
- (4) Belt clip
- (5) Rechargeable battery^{a)}
- (6) Battery release button^{a)}
- (7) User interface
- (8) On/off switch
- (9) Handle (insulated gripping surface)
- (10) Application tool (e.g. socket spanner)^{a)}

User Interface

- (11) Status indicator for power tool (GDS 18V-450 HC / GDS 18V-450 PC)
- (12) Mode indicator (GDS 18V-450 HC, GDS 18V-450 PC)
- (13) Mode button (GDS 18V-450 HC, GDS 18V-450 PC)
- (14) Worklight
- (15) SPEED button (speed preselection)
- (16) Speed preselection indicator (GDS 18V-450 HC / GDS 18V-450 PC)
- (17) TIME button (GDS18V-450H, GDS18V-450P)
- (18) SSR button (GDS18V-450H, GDS18V-450P)
- (19) ABR button (GDS18V-450H, GDS18V-450P)
- (20) STOP button (GDS18V-450H, GDS18V-450P)
- (21) Status indicator (GDS18V-450H, GDS18V-450P)

a) This accessory is not part of the standard scope of delivery.

Cordless Impact Wrench		GDS 18V-450 HC	GDS 18V-450 PC	GDS18V-450H	GDS18V-450P
Max. impact rate ^{A)}	min ⁻¹	3300	3300	3150	3150
Torque ^{A)}					
– Setting 1	Nm	250	250	200	200
– Setting 2	Nm	330	330	280	280
– Setting 3	Nm	450	450	330	330
– Setting 4	Nm	–	–	380	380
– Setting 5	Nm	–	–	450	450
Max. tightening torque ^{A)}	Nm	450	450	450	450
Max. loosening torque ^{A)}	Nm	800	800	800	800
Machine screw diameter	mm	M10–M20	M10–M20	M10–M20	M10–M20
Tool holder		■ ½"	■ ½"	■ ½"	■ ½"
Weight ^{B)}	kg	1.6	1.6	1.6	1.6
Recommended ambient temperature during charging	°C	0 to +35	0 to +35	0 to +35	0 to +35
Permitted ambient temperature during operation ^{C)} and during storage	°C	–20 to +50	–20 to +50	–20 to +50	–20 to +50
Compatible rechargeable batteries		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...	GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...	GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...	GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
Recommended rechargeable batteries for maximum performance		ProCORE18V... ≥ 5.5 Ah EXBA18V-55	ProCORE18V... ≥ 5.5 Ah EXBA18V-55	ProCORE18V... ≥ 5.5 Ah EXBA18V-55	ProCORE18V... ≥ 5.5 Ah EXBA18V-55
Recommended battery chargers		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...	GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...	GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...	GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...
Coin cell	V	3	3	–	–
	Type	CR 2032	CR 2032		
Data transfer					
Bluetooth® ^{D)}		Bluetooth® 4.1 (Low Energy)	Bluetooth® 4.1 (Low Energy)	–	–
Signal interval	s	8	8	–	–
Max. signal range ^{E)}	m	30	30	–	–

A) Measured at 20–25 °C with rechargeable battery **ProCORE18V 8.0Ah**

B) Without rechargeable battery (you can find the battery weight at www.bosch-professional.com)

C) Limited performance at temperatures < 0 °C

D) The mobile devices must be compatible with *Bluetooth®* Low Energy devices (version 4.1) and support the Generic Access Profile (GAP).

E) The signal range may vary greatly depending on external conditions, including the receiving device used. The *Bluetooth®* range may be significantly weaker inside closed rooms and through metallic barriers (e.g. walls, shelving units, cases, etc.).

Values can vary depending on the product, scope of application and environmental conditions. To find out more, visit www.bosch-professional.com/wac.

Noise/vibration information

Noise emission values determined according to **EN 62841-2-2**.

Typically, the A-weighted noise level of the power tool is: Sound pressure level **98 dB(A)**; sound power level **106 dB(A)**. Uncertainty $K = 3$ dB.

Wear hearing protection!

Vibration values a_h (continuous vibrations), p_F (repeated shock vibrations) and uncertainty K determined according to **EN 62841-2-2**:

GDS 18V-450 HC / GDS18V-450H:

Tightening screws and nuts of the maximum permitted size:

$a_h = 15.2 \text{ m/s}^2$ ($K = 1.5 \text{ m/s}^2$),
 $p_F = 1907 \text{ m/s}^2$ ($K = 296 \text{ m/s}^2$)

GDS 18V-450 PC / GDS18V-450P:

Tightening screws and nuts of the maximum permitted size:

$a_h = 14.7 \text{ m/s}^2$ ($K = 1.8 \text{ m/s}^2$), $p_F = 2565 \text{ m/s}^2$ ($K = 256 \text{ m/s}^2$)

The vibration level and noise emission value given in these instructions have been measured in accordance with a standardised measuring procedure and can be used to compare power tools. They can also be used for a preliminary estimation of vibration and noise emissions.

The stated vibration level and noise emission value represent the main applications of the power tool. However, if the power tool is used for other applications, with different accessories or is poorly maintained, the vibration level and noise emission value can differ. This can significantly increase the vibration and noise emissions over the total working period.

To estimate vibration and noise emissions accurately, the times when the tool is switched off or when it is running but not actually being used should also be taken into account. This can significantly reduce vibration and noise emissions over the total working period.

Implement additional safety measures to protect the operator from the effects of vibration, such as servicing the power tool and accessories, keeping their hands warm, and organising workflows correctly.

Rechargeable battery

Bosch sells some cordless power tools without a rechargeable battery. You can tell whether a rechargeable battery is included with the power tool by looking at the packaging.

Charging the battery

► **Use only the chargers listed in the technical data.** Only these chargers are matched to the lithium-ion battery of your power tool.

Note: Lithium-ion rechargeable batteries are supplied partially charged according to international transport regulations. To ensure full rechargeable battery capacity, fully charge the rechargeable battery before using your tool for the first time.

Inserting the Battery

Push the charged battery into the battery holder until it clicks into place.

Removing the Battery

To remove the rechargeable battery, press the battery release button and pull the battery out. **Do not use force to do this.**

The rechargeable battery has two locking levels to prevent the battery from falling out if the battery release button is pressed unintentionally. The rechargeable battery is held in place by a spring when fitted in the power tool.

Battery charge indicator

Note: Not all battery types have a battery charge indicator.

The green LEDs on the battery charge indicator indicate the state of charge of the battery. For safety reasons, it is only possible to check the state of charge when the power tool is not in operation.

Press the button for the battery charge indicator  or  to show the state of charge. This is also possible when the battery is removed.

If no LED lights up after pressing the button for the battery charge indicator, then the battery is defective and must be replaced.

Rechargeable battery type GBA 18V... | GBA18V...



LED	Capacity
3 × continuous green light	60–100 %
2 × continuous green light	30–60 %
1 × continuous green light	5–30 %
1 × flashing green light	0–5 %

Battery model ProCORE18V... | EXPERT18V... | EXBA18V... | CORE18V...



LED	Capacity
5 × continuous green light	80–100 %
4 × continuous green light	60–80 %
3 × continuous green light	40–60 %
2 × continuous green light	20–40 %
1 × continuous green light	5–20 %
1 × flashing green light	0–5 %

Battery defect risk detection

EXPERT18V... | EXBA18V...

In addition to the state of charge of the rechargeable battery, the LEDs on the battery charge indicator can also indicate the risk of a battery defect.

To activate the function, press and hold the button for the battery charge indicator  for 3 seconds. The analysis of the battery is signalled by a moving light on the battery charge indicator. The result of is shown on the battery charge indicator.

 **1 LED:** The rechargeable battery has a high defect risk. Performance and runtime may already be reduced. Replacing the rechargeable battery is recommended.

 **5 LEDs:** The rechargeable battery is in good condition and has a low defect risk.

Please note: The rechargeable battery defect risk assessment works in a binary manner and offers a simplified status assessment, indicating either that the rechargeable battery is in good condition or that the rechargeable battery has an increased defect risk. A percentage of the battery status is not shown.

Recommendations for Optimal Handling of the Battery

Protect the battery against moisture and water.

Only store the battery within a temperature range of -20 to 50 °C. Do not leave the battery in your car in the summer, for example.

Occasionally clean the ventilation slots on the battery using a soft brush that is clean and dry.

A significantly reduced operating time after charging indicates that the battery has deteriorated and must be replaced. Follow the instructions on correct disposal.

Assembly

► **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.

Inserting the *Bluetooth*® Low Energy Module (GDS 18V-450 HC / GDS 18V-450 PC)

Read the corresponding operating instructions for information about the *Bluetooth*® Low Energy Module.

Changing the Tool (see figures A–B)

► **When working with an application tool, pay attention that the application tool is connected securely to the tool holder.** When the application tool is not securely connected with the tool holder, it can come off during application.

Slide the application tool **(10)** onto the square drive of the tool holder **(1)**.

GDS 18V-450 HC / GDS 18V-450 PC:

Removing the application tool

Use a auxiliary tool (e.g. a needle) to remove the application tool.

Belt clip

You can use the belt clip to hang the power tool on a belt, for example. You then have both hands free and the power tool is always at hand.

Operation

► **Only apply the power tool to the screw/nut when the tool is switched off.** Rotating tool inserts can slip off.

Operating Principle

The tool holder **(1)** (with the application tool) is driven by an electric motor via a gear and impact mechanism.

The working procedure is divided into two phases:

Screwing in and tightening (impact mechanism in action).

The impact mechanism is activated as soon as the screwed connection runs tight and load is therefore put on the motor. The impact mechanism then converts the power of the motor to steady rotary impacts. When loosening screws or nuts, the process is reversed.

Set the rotational direction (see figure E)

The rotational direction switch **(2)** is used to change the rotational direction of the power tool. However, this is not possible while the on/off switch **(8)** is being pressed.

Right rotation: To drive in screws and tighten nuts, press the rotational direction switch **(2)** through to the left stop.

Left Rotation: To loosen and unscrew screws and nuts, press the rotational direction switch **(2)** through to the right stop.

Switching on/off

To **start** the power tool, press and hold the on/off switch **(8)**.

The worklight **(14)** lights up when the on/off switch **(8)** is lightly or fully pressed, allowing the work area to be illuminated in poor lighting conditions.

To **switch off** the power tool, release the on/off switch **(8)**.

Adjusting the Speed/Impact Rate

You can adjust the speed/impact rate of the power tool when it is on by pressing in the on/off switch **(8)** to varying extents.

Applying light pressure to the on/off switch **(8)** results in a low rotational speed/impact rate. Applying increasing pressure to the switch increases the speed/impact rate.

Practical advice

► **The power tool with inserted *Bluetooth*® Low Energy Module (accessory) is equipped with a radio interface. Local operating restrictions, e.g. in aircraft or hospitals, must be observed.**

The torque depends on the impact duration. The maximum achieved torque results from the sum of all individual torques achieved through impact. Maximum torque is achieved after an impact duration of 6–10 seconds. After

this duration, the tightening torque increases only minimally. The impact duration is to be determined for each required tightening torque. The tightening torque actually achieved should always be checked with a torque wrench.

Screw applications with hard, spring-loaded or soft seats

When the achieved torques in an impact series are measured during a test and transferred into a diagram, the result is the curve of a torque characteristic. The height of the curve corresponds to the maximum achievable torque, and the steepness indicates the time in which this is achieved.

A torque characteristic depends on the following factors:

- Strength properties of the screws/nuts
- Type of backing (washer, disc spring, seal)
- Strength properties of the material being screwed/bolted together
- Lubrication conditions at the screw/bolt connection

Guide values for maximum screw tightening torques

Figures given in Nm; calculated from the tensional cross-section; utilisation of the yield point: 90% (with friction coefficient $\mu_{\text{total}} = 0.12$). As a control measure, always check the tightening torque with a torque wrench.

Property classes according to DIN 267	Standard screws								High-strength screws		
	3.6	4.6	5.6	4.8	6.6	5.8	6.8	6.9	8.8	10.9	12.9
M10	13	17.5	22	23	26	29	35	39	47	65	78
M12	22.6	30	37.6	40	45	50	60	67	80	113	135
M14	36	48	60	65	72	79	95	107	130	180	215
M16	55	73	92	98	110	122	147	165	196	275	330
M18	75	101	126	135	151	168	202	227	270	380	450
M20	107	143	178	190	214	238	286	320	385	540	635

Tips

Before screwing larger, longer screws into hard materials, it is advisable to pre-drill a pilot hole with the core diameter of the thread to approx. 2/3 of the screw length.

Note: Ensure that no metal particles enter the power tool.

After working at a low speed for an extended period, you should operate the power tool at the maximum speed for approximately three minutes without load to cool it down.

Control Via App (GDS 18V-450 HC / GDS 18V-450 PC)

The power tool can be fitted with a *Bluetooth®* module which enables wireless data transfer to certain mobile devices with a *Bluetooth®* interface (e.g. smartphone, tablet).

In order to control the power tool via *Bluetooth®*, you will need the Bosch "PRO360" app. Download the app from the corresponding app store (Apple App Store, Google Play Store).

Then select the "My Tools" sub-item in the app. The display of your mobile terminal device will show you all subsequent steps required to connect the power tool to the terminal device.

The following functions will be available when a connection has been established with the mobile device:

- Registration and personalisation

Consequently, the following applies in each case:

- A **hard seat** is used for metal-to-metal screw applications that use washers. After a relatively short impact duration, the maximum torque is achieved (steep characteristic curve). An unnecessarily long impact duration only causes damage to the machine.
- A **spring-loaded seat** is also a metal-to-metal screw application but uses spring lock washers, disc springs, studs or screws/nuts with conical seats. It is also called a spring-loaded seat when extensions are used.
- A **soft seat** is a screw application of e.g. wood on wood or metal on wood or a screw application that uses soft backing such as lead washers or fibre washers.

For a spring-loaded seat, as well as for a soft seat, the maximum tightening torque is lower than for a hard seat. A much longer impact duration is also required.

- Status check, output of warning messages
- General information and settings
- Management
- Setting the speed levels
- Setting the working modes

Secure Socket Release

When driving in or loosening screws and nuts, the socket may become jammed. This can be considerably reduced if the "Secure Socket Release" function is activated. The power tool will briefly change the rotational direction of the application tool to the opposite direction.

Activate the "Secure Socket Release" function via the Bosch "PRO360" app.

User Interface (GDS 18V-450 HC / GDS 18V-450 PC)

The user interface (7), see figure C, is used to preselect the speed and working mode, as well to indicate the status of the power tool.

The result may vary depending on the material, material thickness, screws and the amount of force applied by the user. Carry out a test run before any work on the workpiece itself.

Speed preselection

With the speed preselection button **(15)**, you can preselect the required speed in three stages. Press button **(15)** as often as needed until the required setting is indicated in the speed indicator **(16)**. The selected setting will be saved. The required speed depends on the material and the working conditions; it can be ascertained through practical tests.

	Basic speed setting at level		
	1	2	3
	[min ⁻¹]	[min ⁻¹]	[min ⁻¹]
Number of speed settings	3	0-1000	0-1500 0-2300

You can use the button for speed preselection **(15)** to preselect the required speed, even during operation.

Colour of the status indicator	Meaning	Corrective measure
Green	Power tool switched on and ready to use	-
Yellow	Critical temperature reached	Switch the power tool off and allow it to cool down.
	Battery almost empty	Charge the battery.
Red	Power tool has overheated	Leave the power tool to cool down.
	Battery empty	Charge the battery.
Flashing blue	Power tool is connected to a mobile device/settings are being transferred	-

Locking/unlocking the user interface

The user interface can be locked and unlocked using the "Lock User Interface" function in the "PRO360" app.

Locking and unlocking through the user interface:
Activate the "(Un-)Lock from tool" function in the "PRO360" app..

The function is now also enabled on the power tool.
To lock or unlock the user interface, press and hold both the mode button **(13)** and the speed selection button **(15)** for 5 seconds.
Note: If the "Lock User Interface" function is activated, the reset to factory settings option on the power tool is automatically deactivated.

You can also preselect the speed using the Bosch "PRO 360" app.

Selecting the working mode

The power tool has 2 preset working modes **A** and **B (12)**. To switch between the working modes **A** and **B (12)**, press the mode button **(13)**.
You can also programme working modes for different applications and adjust existing modes via the Bosch "PRO360" app under **A** and **B (12)**.

Status indicator for power tool

The status indicator for power tool **(11)** signals the current status of the power tool.

User Interface (GDS18V-450H / GDS18V-450P)

The user interface **(7)**, see figure **D**, is used to preselect the speed and the working mode.
The result may vary depending on the material, material thickness, screws and the amount of force applied by the user. Carry out a test run before any work on the workpiece itself.

Operating the User Interface

User Interface	Description	Instructions
	SPEED working mode In the SPEED working mode, you can preselect the speed in 5 settings. The selected setting is indicated via the status indicator (21) . The default setting is setting 5. You can also select the speed during operation.	Press the SPEED button (15) to switch on the function. The SPEED button (15) and the status indicator (21) light up. Press the SPEED button (15) repeatedly until the required setting is displayed.
	TIME working mode (Shut Off After Time) In the TIME working mode, the power tool stops after a preselected period of time. The automatic shutdown	Press the TIME button (17) to switch on the function. The TIME button (17) and the status indicator (21) light up.

User Interface	Description	Instructions
	prevents damage to the surface and/or screws being tightened excessively. For applications with a hard seat (steep characteristic curve), the settings can be used for fine adjustment to the required result: Setting 1 for a short duration and low torque up to setting 5 for a longer duration and a higher torque. Note: This working mode is only active in the clockwise direction.	Press the TIME button (17) repeatedly until the required setting is displayed. Press and hold the TIME button (17) until the button is no longer lit up. The function is switched off.
	SSR working mode (Secure Socket Release) The SSR working mode uses a brief kickback at the end of the application to prevent the application tool from getting stuck on the bolt or the nut and therefore stops it from coming loose from the tool holder. The SSR working mode can be used in combination with the TIME, ABR and STOP working modes. In this case, the effect of the selected working modes and the effect of the SSR additional function are active at the same time. Note: When the SSR working mode is switched on for the first time, the TIME and ABR working modes are activated at the same time. If the SSR working mode is switched off, the other working modes will remain activated.	Select one of the other working modes TIME (17), ABR (19) or STOP (20) and the required setting. Press the SSR button (18) to additionally switch on the function. The buttons of the selected working modes TIME (17), ABR (19) or STOP (20) as well as the SSR (18) button and the status indicator (21) light up. Press and hold the SSR button (18) until the button is no longer lit up. The SSR function is now switched off. The previously selected working mode TIME (17), ABR (19) or STOP (20) is still active.
	ABR working mode (Auto Bolt Release) The ABR working mode is used for releasing nuts: The power tool automatically shuts down when the bolt nut is released. The automatic shutdown prevents the bolt nut from falling down when released from the screw thread. Depending on the thread length, the time until automatic shutdown can be controlled in 5 settings: Setting 1 for a short thread length (early stop) up to setting 5 for long thread lengths (later stop). The default setting is setting 1. Note: The ABR working mode is only active in the anti-clockwise direction and can therefore be activated in addition to a working mode in the clockwise direction.	Press the ABR button (19) to switch on the function. The ABR button (19) and the status indicator (21) light up. Press the ABR button (19) repeatedly until the required setting is displayed. Press and hold the ABR button (19) until the button is no longer lit up. The function is switched off.
	STOP working mode (Auto STOP) When using the STOP working mode, the power tool stops when the screw is screwed all the way in on the workpiece. The automatic shutdown prevents damage to the surface and/or screws being tightened excessively. For applications with a spring-loaded or soft seat, the settings can be used for fine adjustment to the required result. Note: This working mode is only active in the clockwise direction.	Press the STOP button (20) to switch on the function. The STOP button (20) and the status indicator (21) light up. Press the STOP button (20) repeatedly until the required setting is displayed. Press and hold the STOP button (20) until the button is no longer lit up. The function is switched off.

User Interface	Description	Instructions
 	"Lock/unlock the user interface" function The buttons of the user interface can be locked using the "Lock/unlock the user interface" function to prevent them from being pressed accidentally.	In order to lock the user interface, press and hold the TIME button (17), while simultaneously pressing and holding the ABR button (19) for 3 seconds. In order to unlock the user interface, again press and hold the TIME button (17), while simultaneously pressing and holding the ABR button (19) for 3 seconds.
  	"Reset to factory settings" function All of the changed settings can be reset using the "Reset to factory settings" function.	In order to reset the user interface to factory settings, simultaneously press and hold the TIME button (17), the SSR button (18) and the ABR button (19) for 4 seconds.

Maintenance and Service

Maintenance and Cleaning

- ▶ **Clean the air vents on your power tool regularly.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- ▶ **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.
- ▶ **To ensure safe and efficient operation, always keep the power tool and the ventilation slots clean.**

After-Sales Service and Application Service

Great Britain

Tel. Service: (0344) 7360109

GB Importer:

Robert Bosch Ltd.
Broadwater Park
North Orbital Road
Uxbridge
UB9 5HJ

In all correspondence and spare parts orders, please always include the 10-digit article number given on the nameplate of the product.

Disposal

Power tools, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.



Do not dispose of power tools and batteries/rechargeable batteries into household waste!

Only for EU countries and United Kingdom:

Electrical and electronic equipment or used batteries that are no longer suitable for use must be collected separately and disposed of in an environmentally friendly manner. Use the designated collection systems. Incorrect disposal may cause harmful effects on the environment and human health, due to the potential presence of hazardous substances.

Product Data Information according to regulation (EU) 2023/2854

Connected products or related services generate data during their use. The following sections inform about the generated data related to the product and how the product data can be accessed.

Type of Product Data

The product may generate the following type of data during its use. The actual generated data depends on the particular usage of the product.

- Operating time
- Battery information
- Component temperatures
- Activation of functions
- Failure and service events
- Application information

Product Data Logging

Information about collection of product data and data storage:

- Less than 1 kB of product data is logged.
- The product is capable to store product data on-device while the product is powered on.

Data Access and Data Format

Information how data can be accessed or retrieved by the user:

- Within the EU the user can request the product data via Bosch Power Tools service (email: **PT-Service.EU-DataAct@de.bosch.com**), if the user sends the device to a Bosch service, and/or
- If the product provides a wireless interface the user can get direct access to the product data via the corresponding Bosch Power Tools mobile application.
- The data is provided in a commonly used and machine-readable format (e.g., JSON).

Product Data Information according to regulation (EU) 2023/2854

Connected products or related services generate data during their use. The following sections inform about the generated data related to the product and how the product data can be accessed.

Type of Product Data

The product may generate the following type of data during its use. The actual generated data depends on the particular usage of the product.

- Failure and protection events
- Battery cell information
- Charging information

Product Data Logging

Information about collection of product data and data storage:

- Less than 4 kB of product data is logged.
- The product is capable to store product data on-device while the product is powered on.

Data Access and Data Format

Information how data can be accessed or retrieved by the user:

- Within the EU the user can request the product data via Bosch Power Tools service (email: **PT-Service.EU-DataAct@de.bosch.com**), if the user sends the device to a Bosch service.
- The data is provided in a commonly used and machine-readable format (e.g., JSON).

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